

FIG. 2A

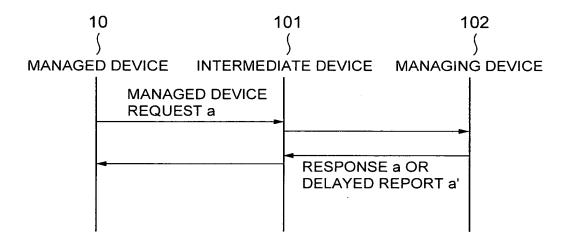
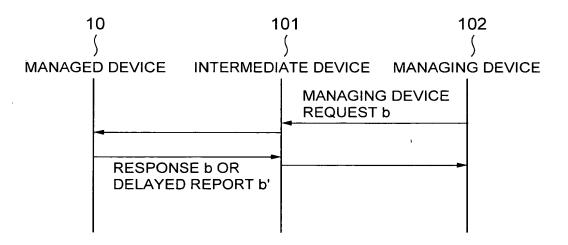


FIG. 2B



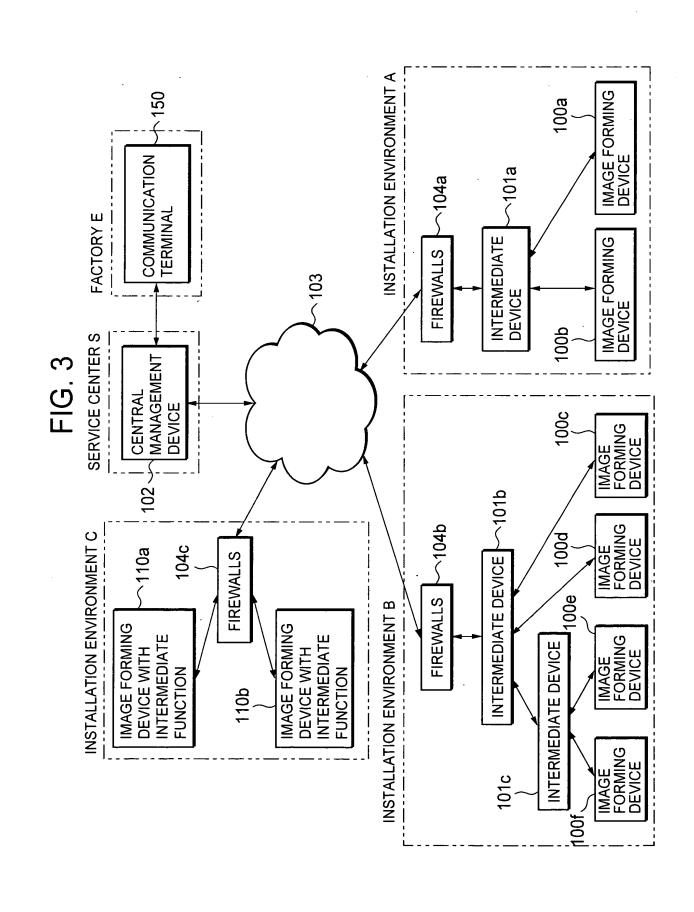


FIG. 4

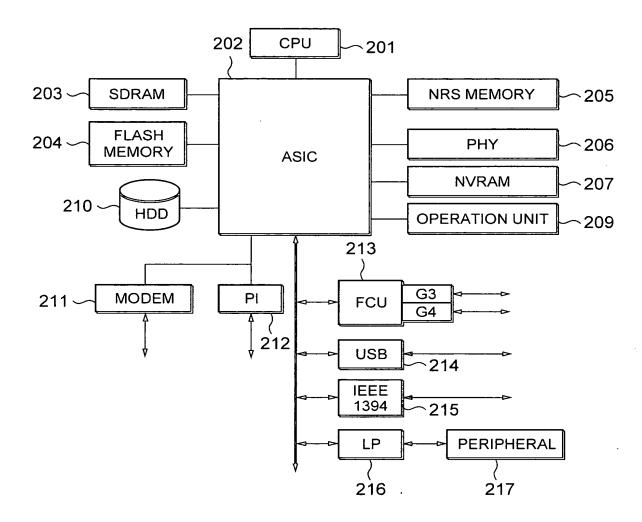


FIG. 5

FLASH MEMORY

CERTIFICATE
COMMON CERTIFICATE
FIXED PARAMETER AREA
PROGRAM AREA

FIG. 6

NVRAM

DEVICE NO
INITIAL OPERATIONAL VALUE
INITIAL APL VALUE
COUNTER INFORMATION
COMMON CERTIFICATE

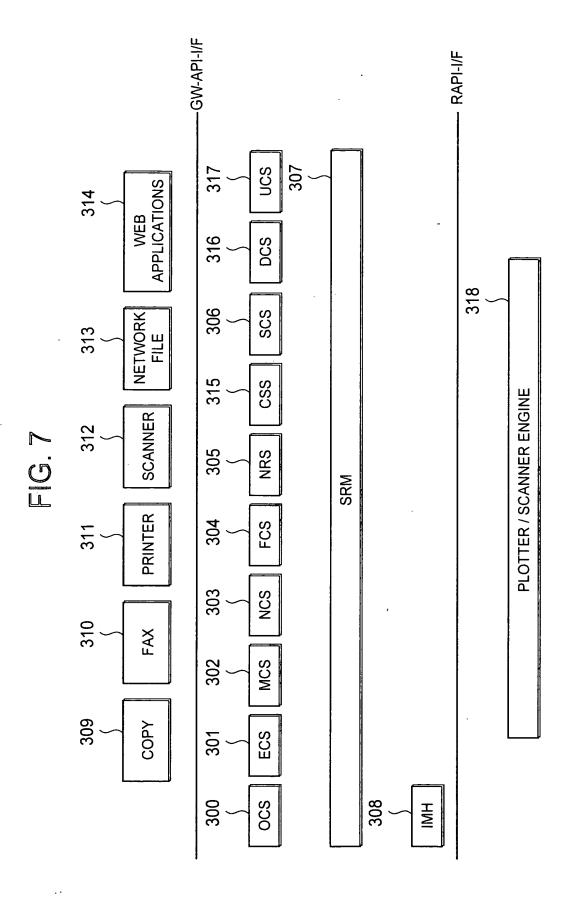
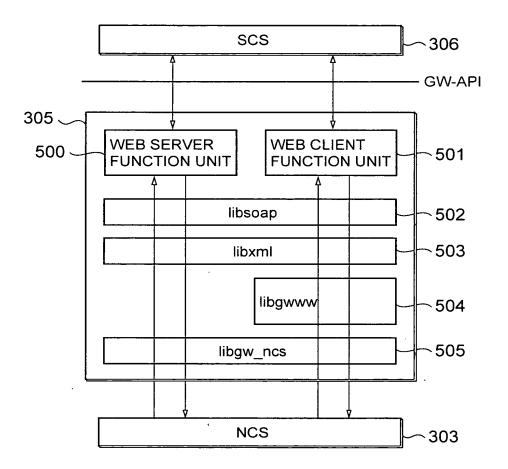


FIG. 8



607 CERTIFICATE
MANAGEMENT DEVICE CONTROL DEVICE CLIENT INFORMATION FILE SERVER **CALL DATA** 809 909 OPERATION TERMINAL COMMUNICATION TERMINAL CENTRAL MANAGEMENT DEVICE 102 602 604 EXTERNAL CONNECTION-I/F PROXY SERVER 605 603 601 MODEM PUBLIC LINE **FACTORY** INTERNET

5 5 1

FIG. 10

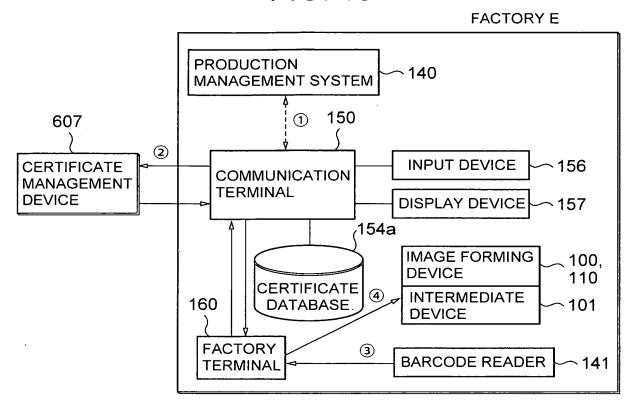


FIG. 11

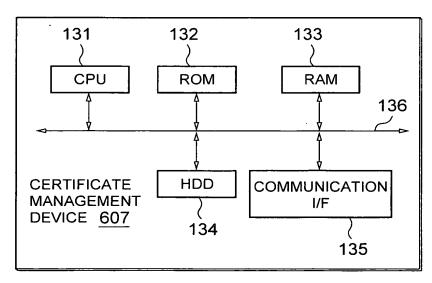


FIG. 12

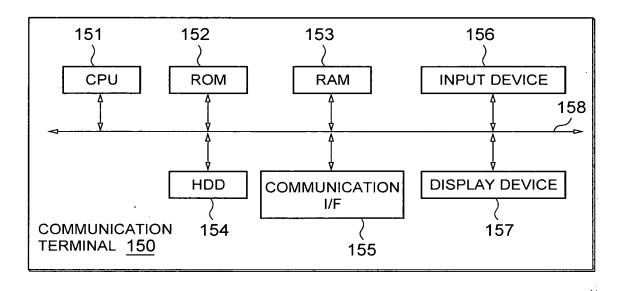
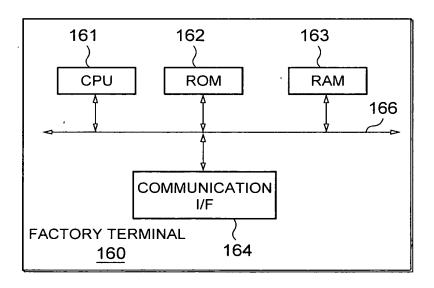


FIG. 13



FACTORY E 7100 IMAGE FORMING DEVICE 100 PRODUCTION LINE ~101 INTERMEDIATE DEVICE 101 PRODUCTION LINE 1002 1003 1001 142b 142c FACTORY TERMINAL **FACTORY TERMINAL FACTORY TERMINAL** 165a ~ 165b ~ 150 160a~ 160c \sim 160b ~ COMMUNICATION TERMINAL MANAGEMENT ROOM MANAGEMENT CERTIFICATE 607 DEVICE

110 IMAGE FORMING DEVICE 110

165c -

FIG. 15

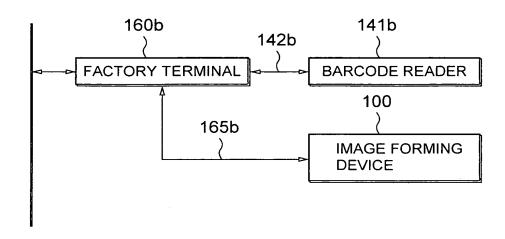


FIG. 16

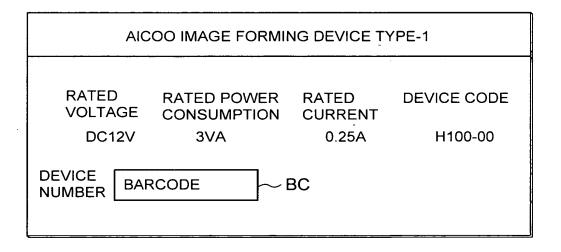
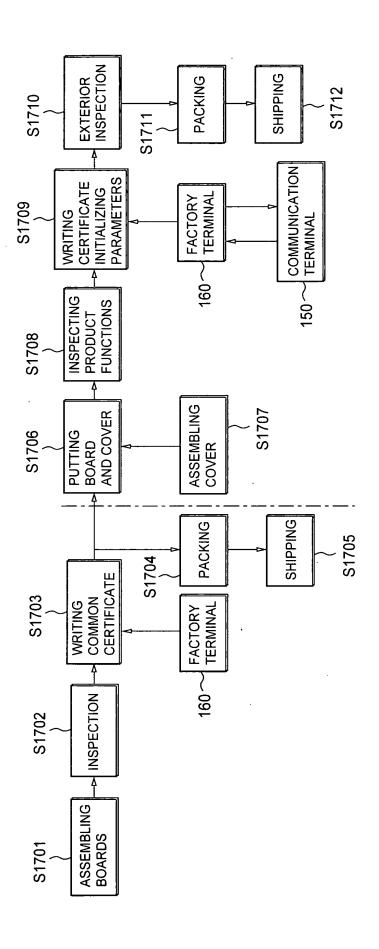


FIG. 17



BARCODE READER 83 **DEVICE NUMBER** ,S10 ,S13 IMAGE FORMING DEVICE <u>%</u> S7 S₄ CERTIFICATE WITH DEVICE NUMBER WRITING RESULT RECEPTION RESPONSE RECEPTION RESPONSE 4 **FACTORY E** FACTORY TERMINAL **S**5 160 CERTIFICATE TRANSMISSION WITH **CERTIFICATE WITH** WRITING RESULT **DEVICE NUMBER** CERTIFICATE WITH DEVICE NUMBER RECEPTION RESPONSE RECEPTION RESPONSE REQUESTING COMMUNICATION 150 TERMINAL **S12 S11** 89, , 98 TRANSMISSION WITH U DEVICE NUMBER Š **DEVICE NUMBER** REQUESTING CERTIFICATE **(P)** MANAGEMENT CERTIFICATE 607 DEVICE TIME

FIG. 18

FIG. 19A

No	DEVICE CODE	CERTIFICATE	REMARKS
1	3012	YES	
2	3013	NO	
3	3014	NO	
4	A123	YES	
5	A125	NO	

FIG. 19B

DEVICE CODE	3/17	3/18	3/19	3/20	3/24	3/25	3/26	3/27
3012	1000	1010	1020	1000	900	1200	1300	1100
3013	500	550	500	560	530	550	530	530
3014	560	570	560	560	540	570	550	550
A123	2120	2000	2130	2000	2000	2130	2110	2000
A125	2000	2001	2010	2020	2010	2000	2300	2000

FIG. 20

			,				KEY (A123-654322)	
CREATION DATE WRITE COMPLETION FLAG	DONE	DONE					ROUTE CERTIFICATE-1 CLIENT CERTIFICATE (A123-654322) CODED KEY (A123-654322)	
CREATION DATE	20030308	20030308	20030308	20030308	20030308	20030308	CLIENT CERTIFIC	
CERTIFICATE	CERTIFICATE 1 PACK	CERTIFICATE 2 PACK	CERTIFICATE 3 PACK	CERTIFICATE 4 PACK	CERTIFICATE 5 PACK	CERTIFICATE 6 PACK	ROUTE CERTIFICATE-1	
DEVICE NUMBER	3012-123456	3012-123457	3012-123458	3012-123459	A123-654321	A123-654322		

FIG. 21

CERTIFICATE TRANSMISSION REQUEST

EVICE NUMBER 1, DEVICE NUMBER 2, DEVICE	
SOAP HEADER REQUEST COMMAND	

CERTIFICATE TRANSMISSION

SOAP HEADER	SOAP HEADER CERTIFICATE TRANSMISSION COMMAND	DEVICE NUMBER 1 CERTIFICATE 1 PACK, DEVICE NUMBER 2 CERTIFICATE 2 PACK, DEVICE NUMBER 3 CERTIFICATE 3 PACK,
		DEVICE NUMBER n CERTIFICATE n PACK,

FIG. 22

DEVICE NO 4			
CERTIFICATE TRANSMISSION	REQUEST COMMAND		
SOAP HEADER C			

CERTIFICATE TRANSMISSION REQUEST

CERTIFICATE TRANSMISSION

PACK	SECRET KEY
DEVICE NO 1 CERTIFICATE 1 PACK	ROUTE CERTIFICATE CLIENT CERTIFICATE SECRET KEY
NO 1	CLIEN
DEVICE	TIFICATE
CERTIFICATE TRANSMISSION COMMAND	ROUTE CER
SOAP HEADER	

FIG. 23A

CERTIFICATE TRANSMISSION

SOAP HEADER CERTIFICATE TRANSMISSION CERTIFICATE COMMAND CERTIFICATE TRANSMISSION CERTIFICATE	FICATE 1 PACK
---	---------------

RECEPTION RESPONSE

SOAP HEADER	CERTIFICATE RECEPTION RESPONSE COMMAND	O.K.
-------------	--	------

FIG. 23B

WRITE RESULT

	SOAP HEADER	WRITE RESULT TRANSMISSION COMMAND	DEVICE NUMBER 1, O.K.
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RECEPTION RESPONSE

SOAP HEADER WRITE RESULT RESPONSE COMMAND	О.К.
---	------

FIG. 24 PRIOR ART

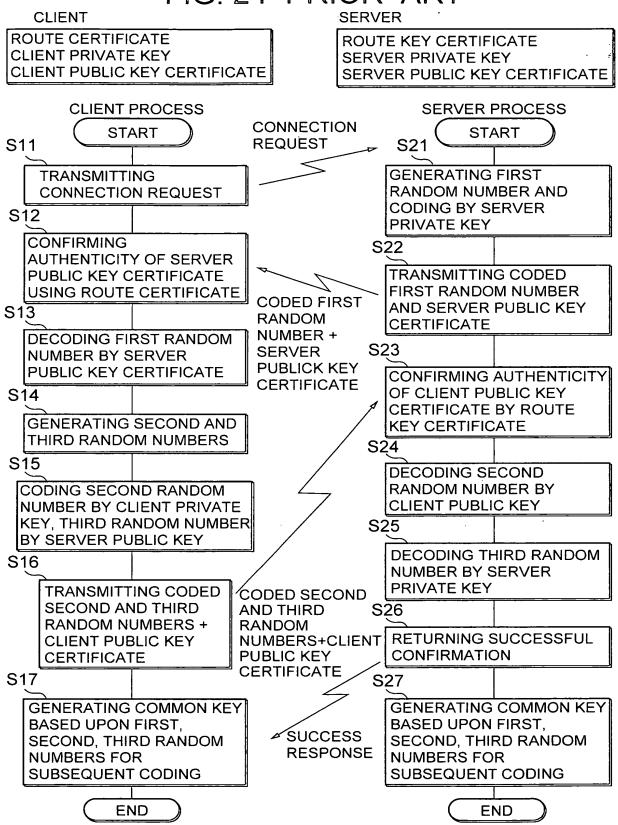


FIG. 25A PRIOR ART

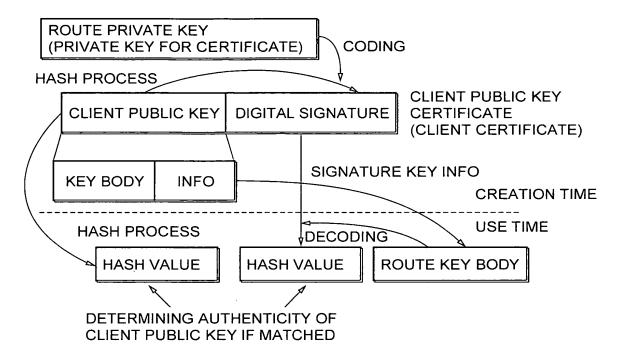


FIG. 25B PRIOR ART

